



U.S. Department  
of Transportation

Research and  
Special Programs  
Administration

SEP 28 1998

400 Seventh Street, S.W.  
Washington, D.C. 20590

DOT-E 9761  
(FOURTH REVISION)

EXPIRATION DATE: August 31, 2000

(FOR RENEWAL, SEE 49 CFR 107.109)

1. GRANTEE: Whittaker Safety Systems  
Simi Valley, California
2. PURPOSE AND LIMITATIONS:
  - a. This exemption authorizes the manufacture, mark, sale and use of cylinders similar to the DOT Specification 4DS cylinder, except the material for construction is stainless steel instead of what is required in the regulations for a Specification 4DS cylinder. The hazardous material contained in these cylinders is a Division 2.2 gas. This exemption provides no relief from any Hazardous Materials Regulation other than as specifically stated herein.
  - b. The safety analyses performed in development of this exemption only considered the hazards and risks associated with transportation in commerce. The safety analyses did not consider the hazards and risks associated with consumer use, use as a component of a transport vehicle or other device, or other uses not associated with transportation in commerce.
3. REGULATORY SYSTEM AFFECTED: 49 CFR Parts 106, 107 and 171-180.
4. REGULATIONS FROM WHICH EXEMPTED: 49 CFR 173.304(a)(1), 175.3 and portions of 178.47 as specified herein.
5. BASIS: This exemption is based on the application of Whittaker Safety Systems dated August 6, 1998 and supplemental information dated September 28, 1998, submitted in accordance with 49 CFR 107.109.

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6. HAZARDOUS MATERIALS (49 CFR 172.101):

Proper Shipping Name/ Hazardous Material Description	Hazard Class/ Division	Identi- fication Number	Packing Group
Compressed gas, n.o.s.	2.2	UN1956	N/A

For the N.O.S. entries above, the requirements of 49 CFR 172., 203(k) must be met.

7. SAFETY CONTROL MEASURES:

a. PACKAGING -Packaging prescribed is a welded steel, non-DOT specification cylinder conforming with DOT Specification 4DS (49 CFR 178.47) except as follows:

§ 178.47(a) Type, size and service pressure.

Type and size: Welded spheres (2 seamless hemispheres) or circumferentially welded cylinders, not over 75 cubic inches (nominal) water capacity conforming with Systron Donner's drawings D7654A and D7653A, or D7652A and D7651A; or drawings D8210 Rev. P-3 and D-900979; or not over 225 cubic inches capacity conforming with Systron Donner's drawings D8754P4 and D8596P1 on file with the Office of Hazardous Materials Exemptions and Approvals (OHMEA).

Service pressure: Not over 700 psig.

§ 178.47(b) Steel.

Type nitronic 40 (ARMCO 21-6-9) austenitic stainless steel with analysis as follows:

(Percent)	(Percent)	(Percent)
C - 0.04 Max.	Si - 1.00 Max.	S - 0.030 Max.
Mn - 8.00/10.00	Cr - 19.00/21.50	N - 0.15/0.40
P - 0.060 Max.	Ni - 5.50/7.50	

## § 178.47(f) Wall thickness.

Minimum wall thickness shall be such that the wall stress does not exceed 60,000 pounds per square inch, at 2 times the marked service pressure. Minimum wall thickness for any diameter cylinder shall be 0.035 inch.

(1) Applies except that  $P = 2$  time marked service pressure.

(2) Applies except that  $P = 2$  time marked service pressure.

## § 178.47(g) Heat treatment.

Cylinders may be stress relieved or annealed for forming. Welded cylinder shall be stress relieved at a temperature of  $900^{\circ} \text{F} \pm 25^{\circ} \text{F}$  after process treatment and before hydrostatic test.

## § 178.47(n) \* \* \* \*

(1) \* \* \* \*

(2) Burst pressure shall be at least 5 times service pressure or  $4/3$  times the test pressure whichever is greater.

## § 178.47(q) Marking.

Applies except "DOT-E 9761" must be substituted for the DOT-4DS specification marking followed by the service pressure. Test pressure must be marked (TP-\_\_\_\_) followed by the pressure at which the cylinder was tested, for example, "TP-2,700". This marking must precede or be located immediately above the date of test.

b. TESTING - Retest and reinspection must be in accordance with the provisions of Section 173.34(e), as prescribed for DOT Specification 4DS cylinders, except that the retest pressure must be that stamped on the cylinder.

c. OPERATIONAL CONTROLS -

A copy of the inspector's report on the first lot of cylinders produced of each design must be submitted to the Office of Hazardous Materials Exemptions and Approvals (OHMEA) prior to initial shipment.

8. SPECIAL PROVISIONS:

a. Shippers may reship the cylinders covered by this exemption pursuant to 49 CFR 173.22a provided:

(1) They are in unopened outside packagings as originally received or,

(2) They are repackaged in strong outside packagings in accordance with 49 CFR 173.301(k).

b. Cylinders are for aircraft use only.

c. The cylinders must be shipped in strong outside packagings in accordance with the provisions of Section 173.301(k). The pressure vessels are acceptable for shipment with the properly approved actuating cartridges installed in the discharge outlet.

d. A person who is not a holder of this exemption, but receives a package covered by this exemption, may reoffer it for transportation provided no modifications or changes are made to the package and it is offered for transportation in conformance with this exemption and the HMR.

e. A current copy of this exemption must be maintained at each facility where the package is offered or reoffered for transportation.

f. Each packaging manufactured under the authority of this exemption must be marked a registration symbol designated by the Office of Hazardous Materials Exemptions and Approvals for a specific manufacturing facility.

g. A current copy of this exemption must be maintained at each facility where the package is manufactured under this exemption. It must be made available to a DOT representative upon request.

9. MODES OF TRANSPORTATION AUTHORIZED: Motor vehicle and cargo aircraft only.

10. MODAL REQUIREMENTS: A copy of this exemption must be carried aboard each aircraft used to transport packages covered by this exemption. The shipper shall furnish a copy of this exemption to the air carrier before or at the time the shipment is tendered.

11. COMPLIANCE: Failure by a person to comply with any of the following may result in suspension or revocation of this exemption and penalties prescribed by the Federal hazardous materials transportation law, 49 U.S.C. Section 5101 et seq:

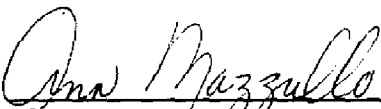
- o All terms and conditions prescribed in this exemption and the Hazardous Materials Regulations, Parts 171-180.
- o Registration required by 49 CFR 107.601 et seq., when applicable.

Each "Hazmat employee", as defined in 49 CFR 171.8, who performs a function subject to this exemption must receive training on the requirements and conditions of this exemption in addition to the training required by 49 CFR 172.700 through 172.704.

No person may use or apply this exemption, including display of its number, when the exemption has expired or is otherwise no longer in effect.

12. REPORTING REQUIREMENTS: The carrier is required to report any incident involving loss of packaging contents or packaging failure to the Associate Administrator for Hazardous Materials Safety (AAHMS) as soon as practicable. (49 CFR 171.15 and 171.16 apply to any activity undertaken under the authority of this exemption.) In addition, the holder(s) of this exemption must also inform the AAHMS, in writing, as soon as practicable of any incidents involving the package and shipments made under this exemption.

Issued at Washington, D.C.

  
Alan I. Roberts  
Associate Administrator for  
Hazardous Materials Safety

9/28/98  
(DATE)

Address all inquiries to: Associate Administrator for Hazardous Materials Safety, Research and Special Programs Administration, Department of Transportation, Washington, D.C. 20590.  
Attention: DHM-317

The original of this exemption is on file at the above office. Photo reproductions and legible reductions of this exemption are permitted. Any alteration of this exemption is prohibited.

Copies of exemptions may be obtained from the AAHMS, U.S. Department of Transportation, 400 7th Street, Washington, DC 20590-0001, Attention: Records Center, 202-366-5046.

Dist: FHWA FAA  
PO: sln